

## REMARKS

The Applicants thank the Examiner for the careful examination of this application and respectfully request the entry of the amendments indicated hereinabove.

Claims 1 – 17 are pending and rejected. Claims 1, 2, 9, 16, and 17 are amended hereinabove.

Amended Claim 1 positively recites a hard protective film that is not an attachment layer. In addition, Claim 1 positively recites the hard protective film having a thickness that is substantially less than the sensing range. These advantageously claimed features are not taught or suggested by the patents granted to Herrmann et al., Melendez et al., or Molloy; either alone or in combination.

The Applicants respectfully traverse the indication in the Office Action (page 3) that the advantageously claimed hard protective film is described in the Herrmann et al. patent in column 2 lines 27 – 42. The Applicants submit that the metal oxide layer described in that portion of the Herrmann patent is an attachment layer (column 2 lines 33-65) and therefore – by definition – not a hard protective layer. Since making hard coatings is difficult and expensive, the Applicants submit that a person knowledgeable in the art who reads the Herrmann patent would assume that Herrmann's attachment layer is not a hard protective film as advantageously claimed.

The Applicants also submit that the metal oxide layer described in that portion of the Herrmann et al. patent does not have a thickness (column 2 lines 36-38) that is substantially less than the sensing range as advantageously claimed.

Like Herrmann et al., the patent granted to Melendez et al. does not teach or suggest the advantageously claimed hard protective film. Moreover, the patent granted to Molloy does not teach or suggest the advantageously claimed hard protective film (rather, Molloy uses stacked dielectric layers with an oxide on top for silanization to attach bio-molecules).

Therefore, the Applicants respectfully traverse the Examiner's rejection of Claim 1 and respectfully assert that Claim 1 is patentable over Herrmann et al., Melendez et al., and Molloy; either alone or in combination. Furthermore, Claims 2 - 8 are allowable for depending on allowable independent Claim 1 and, in combination, including limitations not taught or described in the references of record.

Claim 9 positively recites an overlying hard protective film. Furthermore, Claim 9 positively recites that the film consists essentially of a material selected from the group consisting of silicon carbide and diamond-like carbon. These advantageously claimed features are not taught or suggested by the patents granted to Herrmann et al., Melendez et al., or Molloy; either alone or in combination.

The Applicants were unable to find any rejection specifically directed to Claim 9 in the Office Action. Therefore, the Applicant will note some of the differences between the Applicant's invention and the patents cited in the Office Action against Claims 10-15 (which ultimately depend on independent Claim 9). The Applicants submit that the metal oxide layer described in the Herrmann patent is an attachment layer (column 2 lines 33-65) and therefore – by definition – not a hard protective layer. Since making hard coatings is difficult and expensive, the Applicants submit that a person knowledgeable in the art who reads the Herrmann patent would assume that Herrmann's attachment layer is not a hard protective film as advantageously claimed. In addition, the Applicants respectfully traverse the indication in the Office Action (page 3) that Herrmann teaches the use of silicon carbide and diamond-like carbon in column 2 lines 41-42.

Like Herrmann et al., the patent granted to Melendez et al. does not teach or suggest the advantageously claimed overlying hard protective film. Moreover, the patent granted to Molloy does not teach or suggest the advantageously claimed overlying hard protective film.

Therefore, the Applicants respectfully traverse the Examiner's rejection of Claim 9 and respectfully assert that Claim 9 is patentable over Herrmann et al., Melendez et al., and Molloy; either alone or in combination. Furthermore, Claims 10 - 15 are allowable for depending on allowable independent Claim 9 and, in combination, including limitations not taught or described in the references of record.

Claim 16 positively recites a hard protective film that is not an attachment layer overlaying the surface of the resonance film. In addition, Claim 16 positively recites the hard protective film having a thickness that is substantially less than the sensing range. These advantageously claimed features are not taught or suggested by the patents granted to Herrmann et al., Molloy, or Melendez et al.; either alone or in combination.

The Applicants respectfully traverse the indication in the Office Action (page 8) that the advantageously claimed hard protective film is described in the Herrmann et al. patent. The Applicants submit that the metal oxide layer described in that portion of the Herrmann patent is an attachment layer (column 2 lines 33-65) and therefore – by definition – not a hard protective layer. Since making hard coatings is difficult and expensive, the Applicants submit that a person knowledgeable in the art who reads the Herrmann patent would assume that Herrmann's attachment layer is not a hard protective film as advantageously claimed.

The Applicants also submit that the metal oxide layer described in that portion of the Herrmann et al. patent does not have a thickness (column 2 lines 36-38) that is substantially less than the sensing range as advantageously claimed.

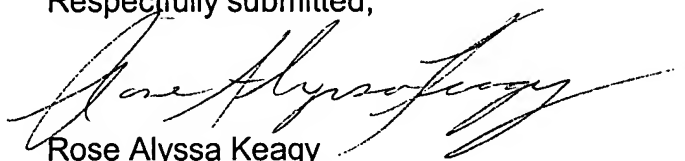
Like Herrmann et al., the patent granted to Melendez et al. does not teach or suggest the advantageously claimed hard protective film. Moreover, the patent granted to Molloy does not teach or suggest the advantageously claimed hard

protective film (rather, Molloy uses stacked dielectric layers with an oxide on top for silanization to attach bio-molecules).

Therefore, the Applicants respectfully traverse the Examiner's rejection of Claim 16 and respectfully assert that Claim 16 is patentable over Harrmann et al., Molloy, and Melendez et al.; either alone or in combination. Furthermore, Claim 17 is allowable for depending on allowable independent Claim 16 and, in combination, including limitations not taught or described in the references of record.

For the reasons stated above, this application is believed to be in condition for allowance. Reexamination and reconsideration is requested.

Respectfully submitted,



Rose Alyssa Keagy  
Attorney for Applicants  
Reg. No. 35,095

Texas Instruments Incorporated  
PO BOX 655474, M/S 3999  
Dallas, TX 75265  
972/917-4167  
FAX - 972/917-4409/4418